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Case Report

Surgical stump site pregnancy-an unusual case report

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ABSTRACT

Ectopic pregnancy is an obstetrics emergency which we all encounter in our day-to-day practice. Though maternal mortality rate is decreasing worldwide, still ectopic pregnancy is an important contributor towards maternal morbidity and mortality. Ectopic pregnancy at surgical stump site after salpingectomy is extremely rare with reported prevalence of 0.4-1.2%. We report one of such unusual case of 30 years old female, who had history of left salpingectomy 5 years back and presented to our hospital with abdominal pain. On evaluation, ectopic pregnancy at ipsilateral tubal stump was confirmed and she was successfully managed with surgical intervention. As early diagnosis of tubal stump pregnancy holds the key in successful management, we should keep high suspicion and carefully examine the patients with history of salpingectomy for ectopic pregnancy.

Keywords: Cornual pregnancy, Ectopic pregnancy, Tubal stump pregnancy, Laparoscopic surgery, Human chorionic gonadotropin

INTRODUCTION

Ectopic pregnancy is one of the commonest obstetrics emergencies encountered in day-to-day practice. This medical condition is defined as an interference in the successful migration of the conceptus to the endometrium.¹ Almost 95% of the cases of ectopic pregnancy are due to fallopian tube pathology and more than three-fourth of ectopic pregnancies have their implantation in the ampulla.² Here we present an interesting case depicting recurrence of ectopic pregnancy at unusual site on the side of previous salpingectomy. It is very important to develop screening protocol for early diagnosis in such high-risk cases as this would decrease maternal morbidity and mortality.

CASE REPORT

A 30 years old female presented to obstetrics emergency ward with lower abdominal pain. She had history of 2 months amenorrhoea and her urinary pregnancy test was faintly positive. According to her obstetrics history she was G4P1L1E1Ab1. She had an uneventful normal

vaginal delivery 9 years back. She had a left ectopic pregnancy 5 years back which was managed with open left sided salpingectomy. Third conception was a missed abortion at 10 weeks for which she underwent medical termination of pregnancy 7 months ago. Apart from this, her medical and surgical history was not significant.

At the time of admission, her vitals were normal. Per abdomen findings revealed no tenderness, distention or rigidity. Per speculum examination showed no bleeding and a healthy cervix. Uterus was bulky in size with free right fornix; a soft cystic mass of size 3×2 cm was felt on the left side in continuation with the uterus on per vaginum examination. Her hematological investigations were within normal range except beta-human chorionic gonadotropin (hCG) was more than 10,000 mIU/ml. Ultrasound showed a left adnexal thick-walled heterogenous lesion measuring 3.7×4.3 cm in size. There was no gestational sac in the uterus. The mass had a fetal pole with crown rump length of 14.5 mm corresponding to 7+5 weeks and presence of cardiac activity. There was mild free fluid intraperitoneally. She was suspected to have ectopic pregnancy of left tubal stump and a decision

for laparoscopy followed by laparotomy (suspecting previous adhesions) was made.

Intraoperatively, laparoscopy revealed a 10-12 weeks uterus with right healthy adenexa and left sided cornual pregnancy with adherent omentum, sigmoid colon and left ovary to it. In view of these adhesions, decision for laparotomy was taken. Omentum and intestine were separated through sharp and blunt dissection. Left tubal stump had a bluish gestational sac measuring 4cm x 3cm in size adherent to the ipsilateral ovary. Left fallopian tube was absent. Infundibulopelvic ligament and ovarian ligament were clamped, cut and transfixed (Figure 1). Left uterine artery was clamped, cut and ligated. The cornual ectopic with the adherent ovary was excised and was confirmed on histopathology (Figure 2). Patient had an uneventful post-operative period and levels of beta-hCG showed a declining trend.

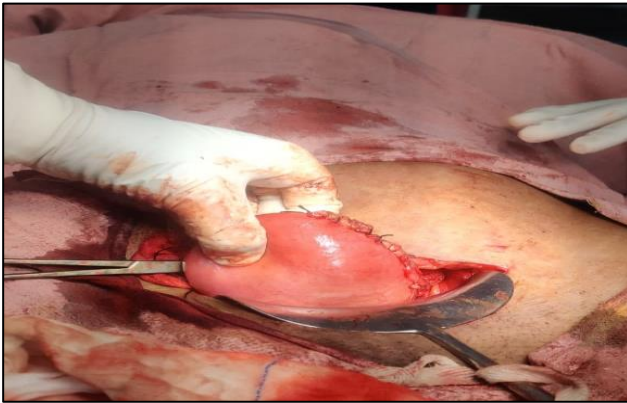


Figure 1: Uterus after excision of left cornual ectopic.



Figure 2: Excised left cornual ectopic with adherent left ovary.

DISCUSSION

In ectopic pregnancy, the word ectopic comes from the Greek word “ektapos” which means “out of place”.³ Literally, it depicts conception outside its usual anatomic location, that is the endometrium. Since the earliest report

on ectopic pregnancy which was published in 1964, the presentation of ectopic pregnancy at various unusual sites has come into picture.⁴ More than three-fourth of ectopic pregnancies have their implantation in the tubal ampulla, but cornual or tubal pregnancy on the remaining surgical stump is extremely rare and accounts for only 0.4 to 1.2% of all the ectopic pregnancies.⁵ Every day in the year 2017, approximately 810 women died worldwide from the preventable causes related to pregnancy and childbirth. As per report from world health organization (WHO), between year 2000 and 2017, though the global maternal mortality rate (MMR) has declined to 38% worldwide, still haemorrhagic shock due to missed ectopics has remained as one of the most important contributors towards this MMR specially in the low and lower middle-income countries.⁶ The reason behind this increased risk of hemorrhagic shock in tubal stump pregnancy is that anatomically the stump is a very vascular structure owing to the dual blood supply from the ovarian and uterine vessels and the anastomosis between them.⁷

Point-of-care ultrasound (POCUS) has proven to be very useful in the early diagnosis of ectopic pregnancy.⁸ Tubal stump on the side of previous salpingectomy should also be carefully screened as diagnosis of cornual or tubal stump pregnancy is relatively difficult. There are few ultrasonographic criteria which aid in the diagnosis of ectopic pregnancy. The criteria proposed by Lau and Tulandi has low sensitivity (40 %) but has high specificity (88-93%).⁹ Their criteria included three parameters- an empty uterus, a gestational sac viewed >10 mm from the most lateral edge of the uterine cavity and a thin myometrial layer around the gestational sac. Timor-Tritsch et al proposed another ultrasonographic criterion: the finding of an “interstitial line sign”. This criterion has a high specificity of 98% and sensitivity of 80% for the diagnosis of interstitial and tubal stump pregnancies. It represents the visualization of an echogenic line extending into the abutting ectopic mass.¹⁰

Speculations are made regarding two theories playing a role in the pathogenesis of tubal stump pregnancy. First is intrauterine transmigration. It involves taking up of the fertilized ovum from the existing contralateral tube to the opposite side stump. Second is the possibility of a fistulous communication of the stump either transabdominally or transperitoneally.^{11,12}

With recent advances in the both diagnostic and therapeutic methods, the paradigm of management has shifted towards more conservative approach. Cornual pregnancy can now be dealt either medically (methotrexate) or by surgery.⁹ The studies have shown that surgical treatment is having a slightly higher success rates than medical management.⁹ Many hypotheses like decreasing the length of the remanant tube or hysterosalpingography (HSG) after surgery has shown some decrease in the occurrence rate of cornual pregnancies.¹³

Future research aims to develop institutional screening protocols for females with high risk for ectopic pregnancy. These will help us to diagnose ectopic pregnancy including tubal stump pregnancy early and will enhance success rates of treatment strategies and thereby will help in decreasing the MMR.

CONCLUSION

Patients with history of surgery for ectopic pregnancy should be screened with high index of suspicion keeping chances of cornual pregnancy in mind. There should be minimum 4 months of waiting period after surgery before planning for next conception. High vascular supply and unusual presentations increase the risk of complications in tubal ectopic pregnancies. With proper history and careful ultrasonographic examination, we can easily diagnose cornual pregnancy early and thereby decrease its contribution towards the existing MMR.

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